

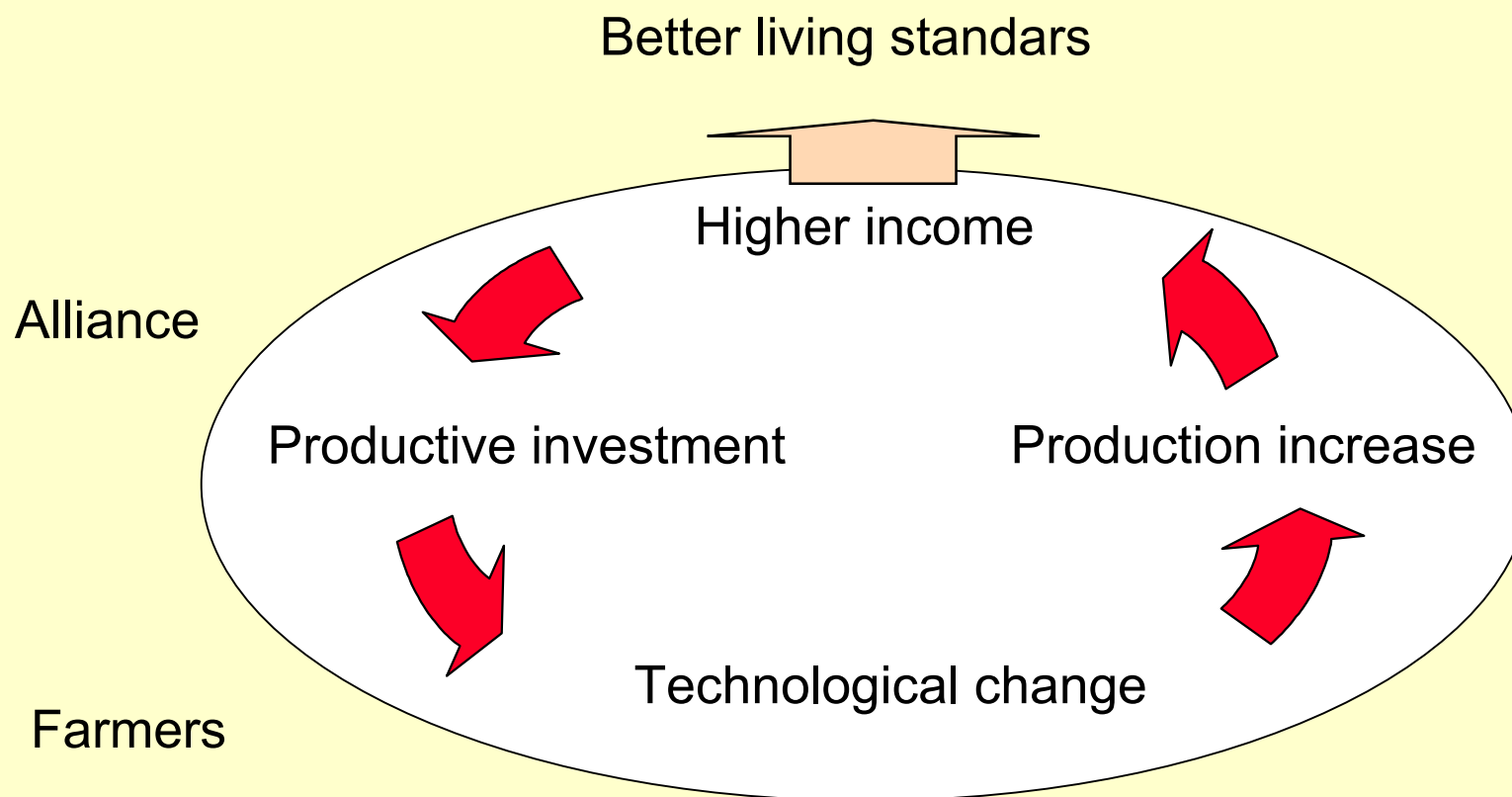


# AGRICULTURAL MODERNIZATION IN MEXICO

December 2000

## AGRICULTURAL ALLIANCE

Breaks the vicious circle between lack of investment and low profits.

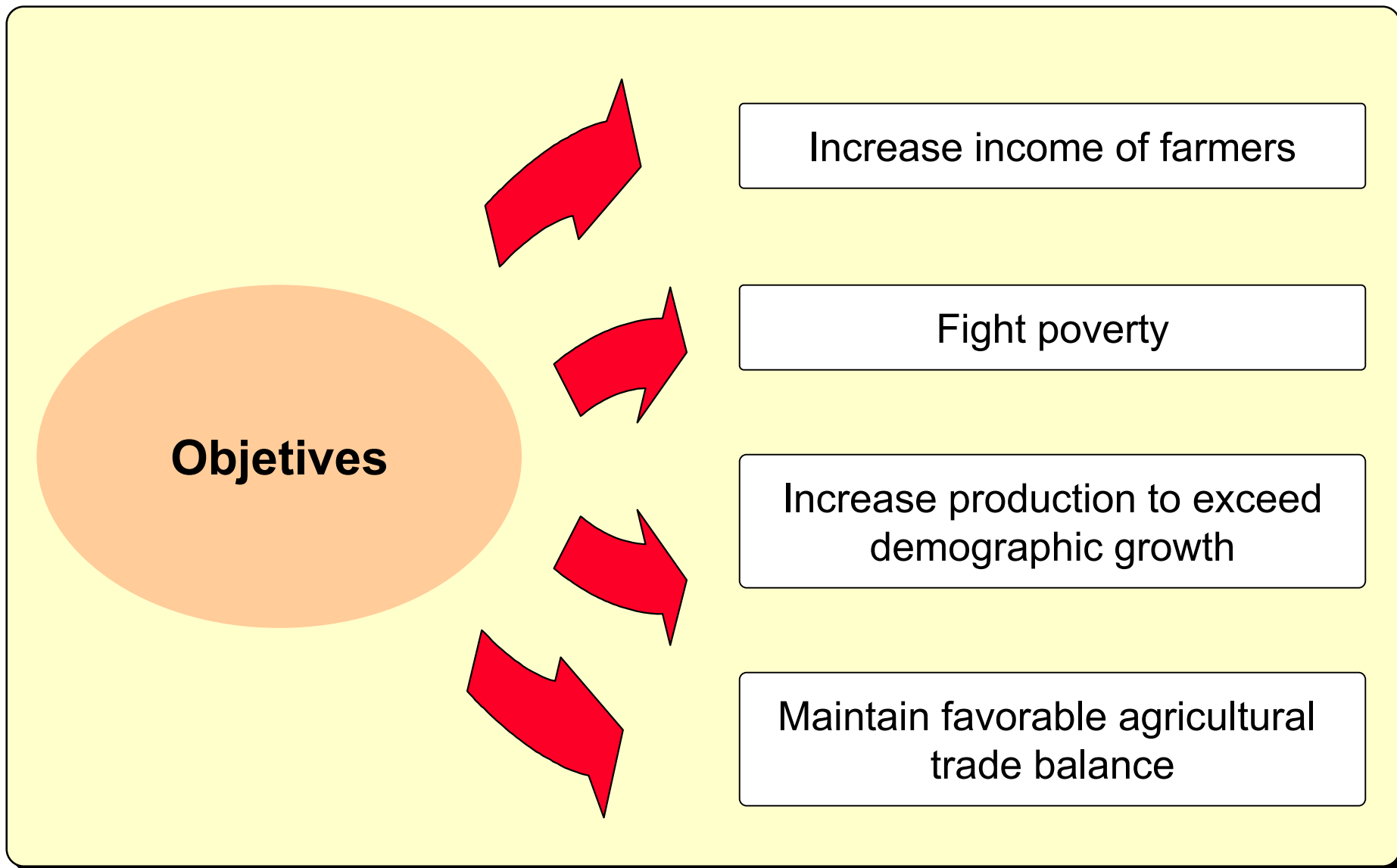




# AGRICULTURAL MODERNIZATION IN MEXICO



## AGRICULTURAL ALLIANCE

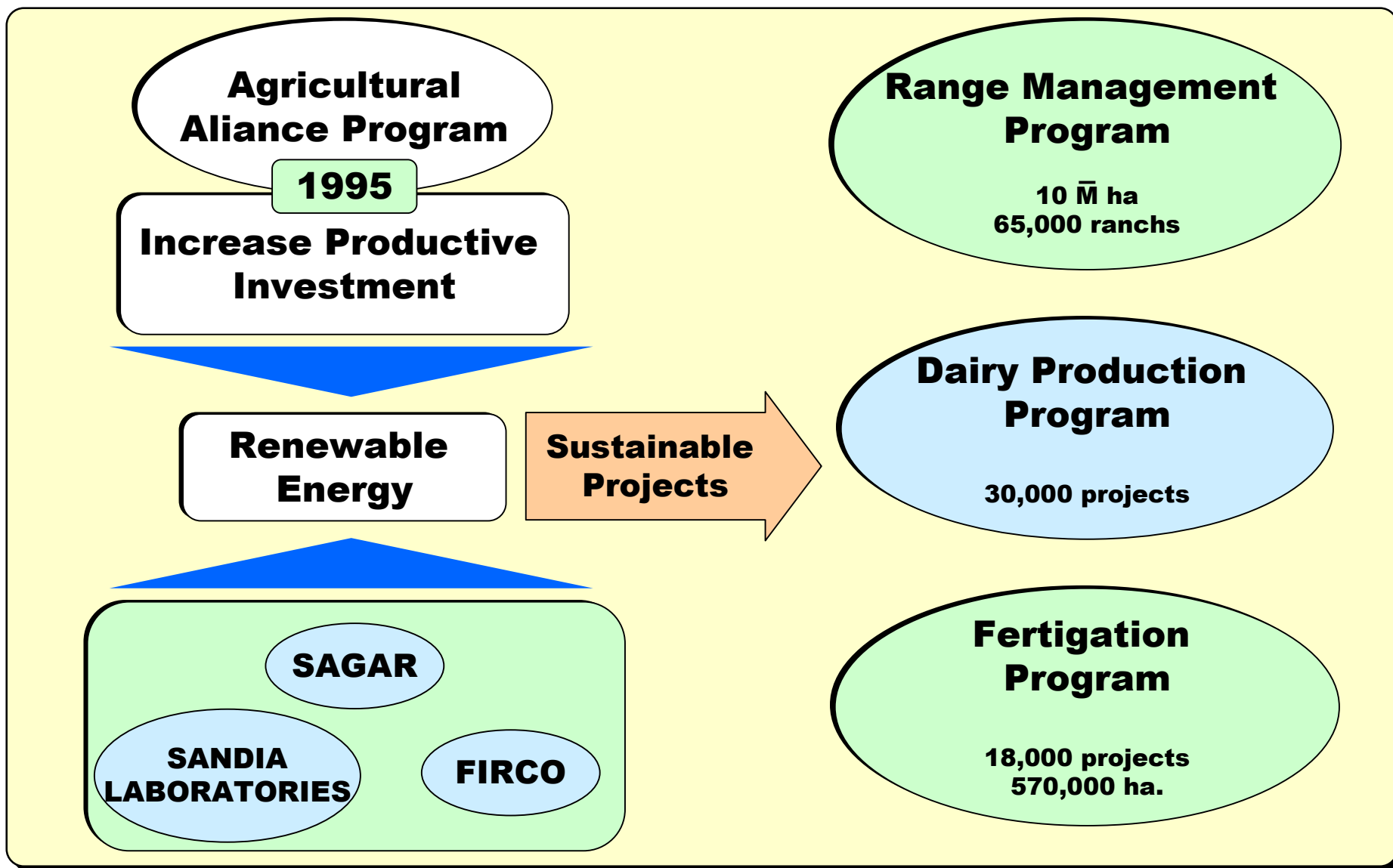




# AGRICULTURAL MODERNIZATION IN MEXICO



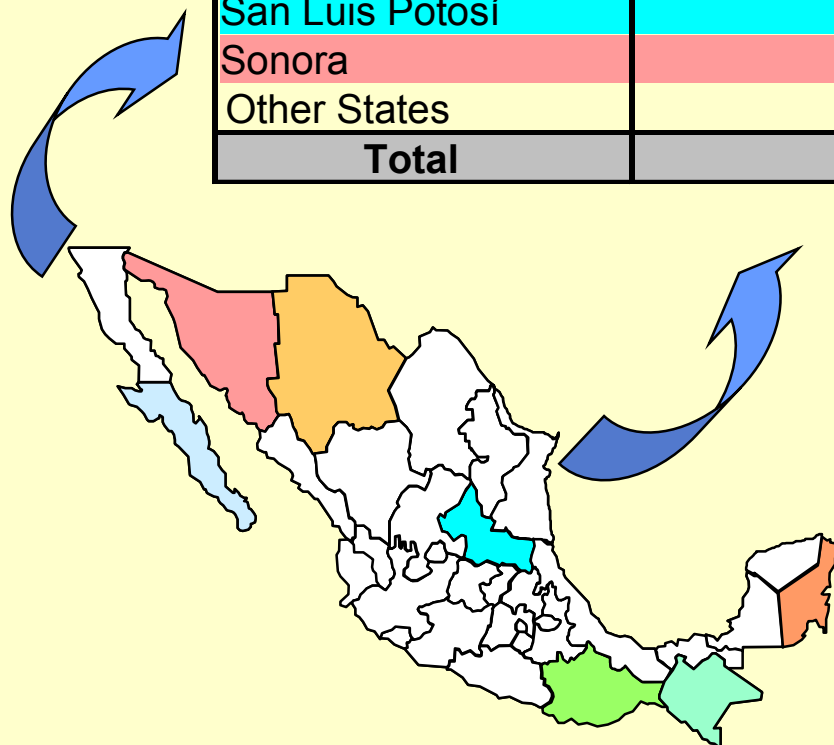
## BACKGROUND



## BACKGROUND

State	Demostration Projects	Investment	Producers
Baja Cal. Sur	44	380.1	297
Chiapas	4	21.2	14
Chihuahua	41	510.0	981
Oaxaca	10	50.6	60
Quntana Roo	43	187.1	43
San Luis Potosí	6	71.3	344
Sonora	40	296.6	1654
Other States	7	30.5	16
<b>Total</b>	<b>195</b>	<b>1,543.4</b>	<b>3409</b>

**Average cost = 16.4 \$dls/wats**



### Benefits

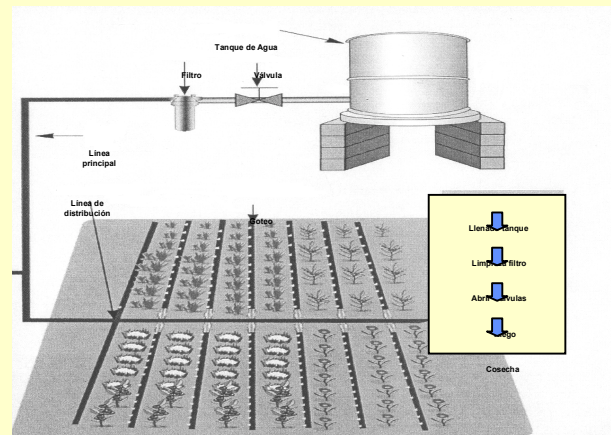
- Reliability in water supply.
- Improvement in animal nutrition.
- Lower operation and maintenance costs.
- Increased income.

## LESSONS LAERNEED

- Wide perspective of use.
- Low operation, maintenance and labor costs.
- Medium term payback periods.
- Sustainable agricultural for rural development.
- Institutional development in Firco.



**Livestock water**



**Drip Irrigation Sistem**



**Electric Fences**

## LIVESTOCK-IRRIGATION IN BAJA CALIFORNIA SUR

### Farm Unit

- Extensive grassland. 175 ha.
- Animal heads. 117
- Low productivity parameters.
- Internal combustion pumping.



N.P.C. \$ 38.05 (Thnd)  
B/C 2.9  
I.R.R. 19.7 %

### Water Pumping with Solar Pannels

#### INVESTMENT

(Thousand Dollars)

RenewableEnergy	8.45
•Solar Equipment for water pumping.	
Productive Project	10.68
•Fences, pens, water tanks, forrage, drip irrigation sistem.	
<b>Total</b>	<b>19.13</b>

### Productive and Resources Conservation Program



## AGRICULTURAL MODERNIZATION IN MEXICO



### G.E.F. PROGRAM 2000-2004

#### Conditions

- **Agreement Signature, march 26 of 2000.**
- **Effectiveness Agreement, august 28 of 2000.**

#### Objective

- **Promote and disseminate the use of Renewable Energy into Agriculture Sector, throughout Productive Sustainable Projects.**

#### Coverage



- **Demostrative projects in 28 states.**
- **Vendor Financing in 4 states.**





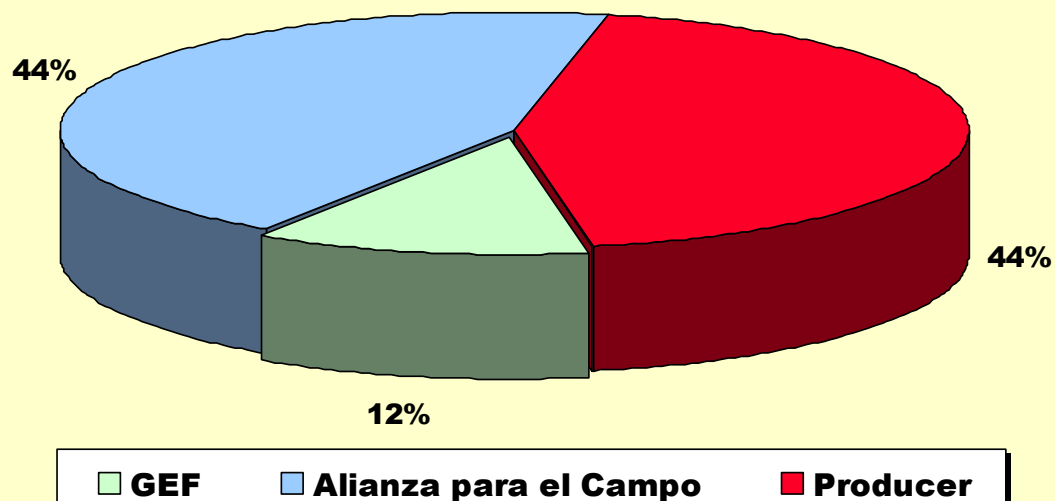
## AGRICULTURAL MODERNIZATION IN MEXICO



### G. E. F. PROGRAM 2000-2004

- **Potential demand for agricultural and livestock market in 600,000 ranches.**
- **Selection of sites without economical access to the utility grid.**
- **Projects that will be used for more than one application, such as: Small scale irrigation, livestock water, milk refrigeration tanks and Rural Development.**

#### Distribution Budget





# AGRICULTURAL MODERNIZATION IN MEXICO



## PROJECT COMPONENTS

- **Institutional Building Capability.**

- Local Training Courses
- Regional Workshops

- **Promotion and Publicity.**

- **Market development.**

- Agricultural Detailed Market Study
- Technological Improvement Study

- **Specification and Certification.**

- **Investments.**

- Photovoltaic systems
- Eolic systems
- Other applications

- **Technical Assistance.**

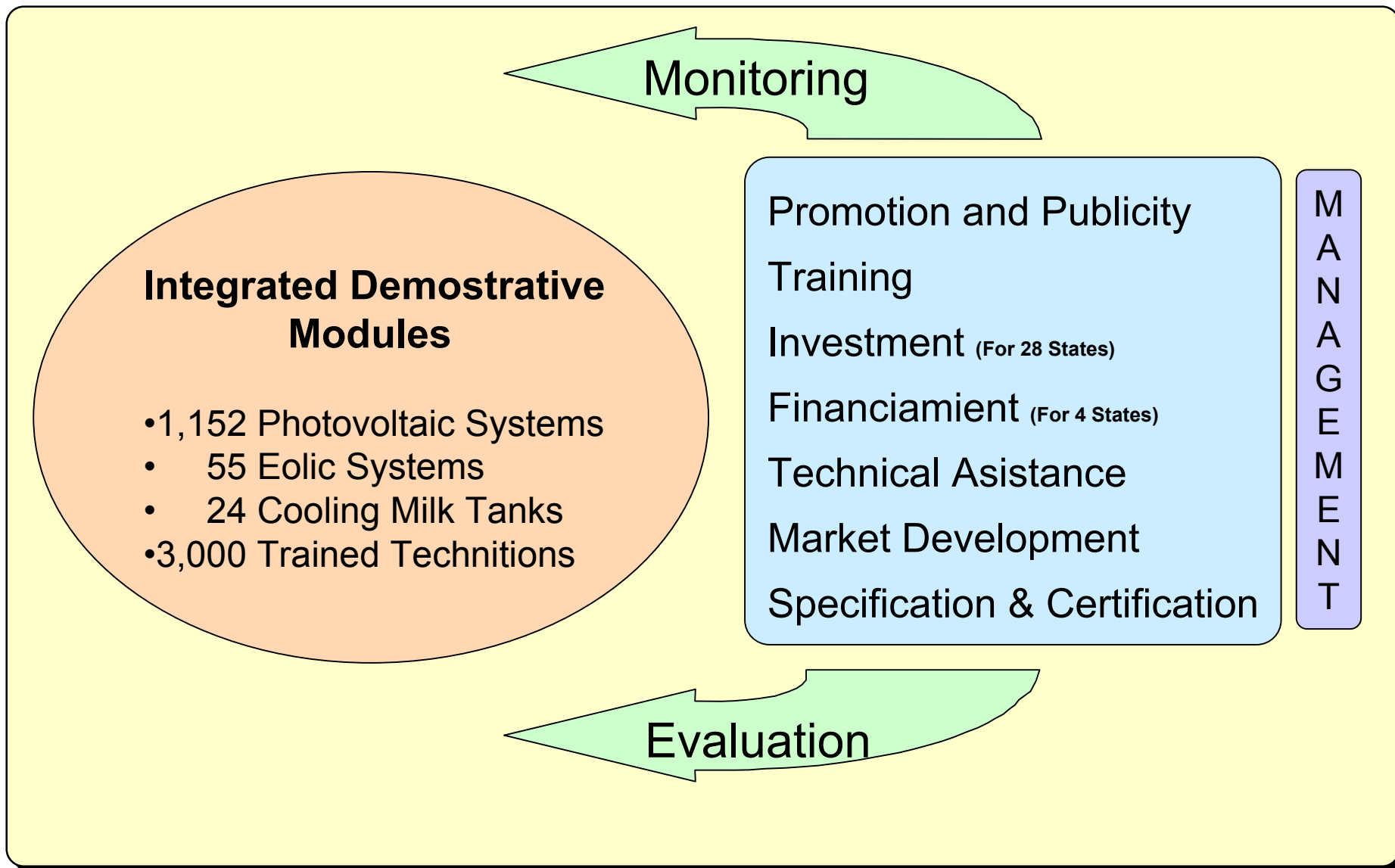
- **Project Management.**



# AGRICULTURAL MODERNIZATION IN MEXICO



## PROJECT COMPONENTS

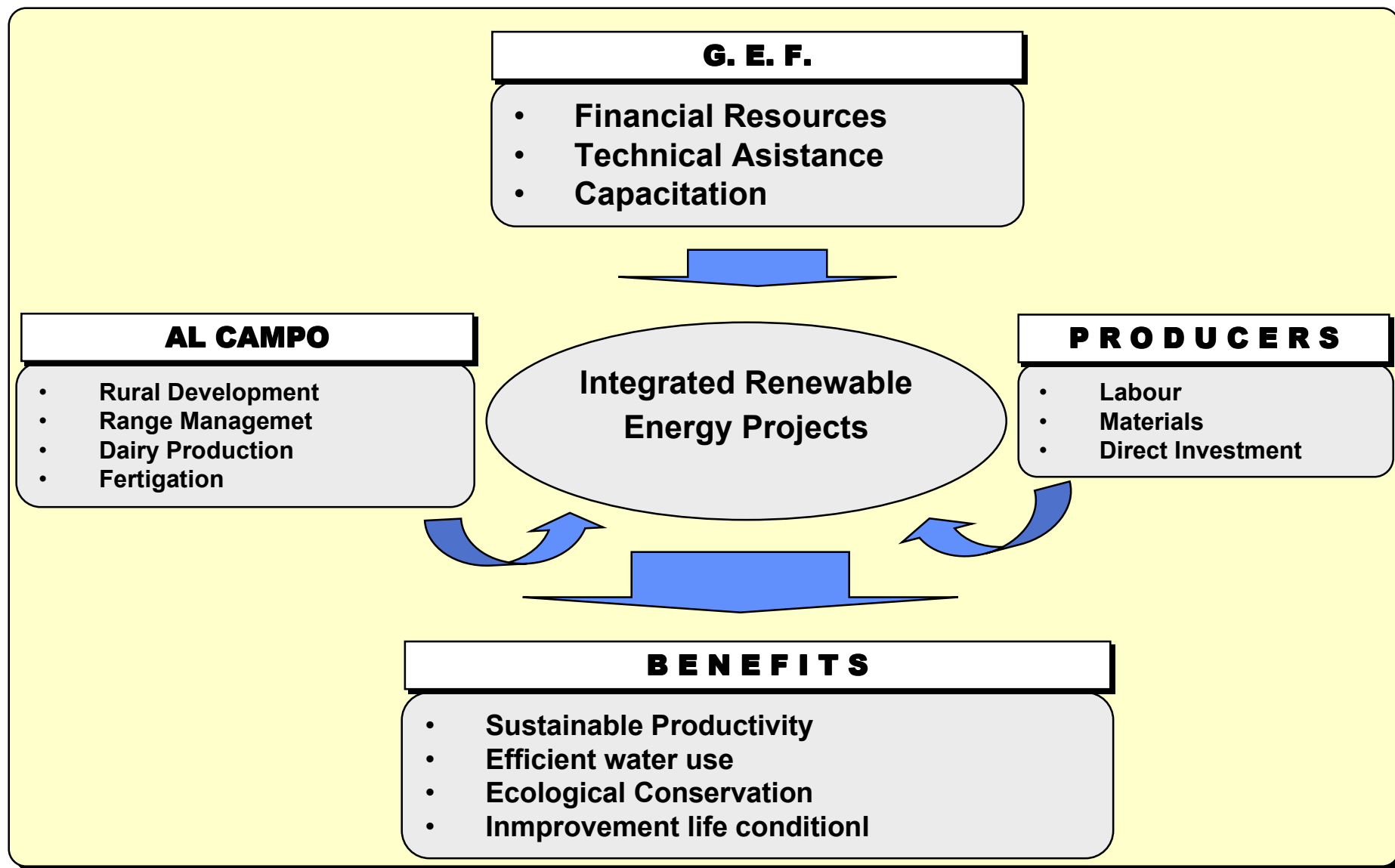




# AGRICULTURAL MODERNIZATION IN MEXICO



## PROGRAM IMPLEMENTATION





## **AGRICULTURAL MODERNIZATION IN MEXICO**

